

571-273-1119



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,585	01/22/2002	Sapna H. Talibuddin	08CV5807-5	4134

23413 7590 08/27/2003

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6P5-0029C

EXAMINER

SHOSHO, CALLIE E

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 08/27/2003

RECEIVED

CANTOR COLBURN LLP

Please find below and/or attached an Office communication concerning this application or proceeding.

DOCKETED
Due: November 27
From: Response
Initials: vpm on 8/29/03

Ge due:  
9/27/03

**Office Action Summary**

Application No.

09/683,585

Applicant(s)

TALIBUDDIN, SAPNA H.

Examiner

Callio E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2/19/02. 6) ☐ Other: \_\_\_\_

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### **DETAILED ACTION**

#### **Claim Rejections - 35 USC § 103**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
2. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vollenberg et al. (U.S. 5,840,798) alone, or alternatively, in view of Walsh (U.S. 5,367,011).

Vollenberg et al. disclose a flame retardant polyester composition comprising 5-40% glass fibers, 20-50% polyester such as polyethylene terephthalate, polybutylene terephthalate, polypropylene terephthalate, polyethylene naphthanoate, and polybutylene naphthanoate, greater than 0% to 15% polycarbonate, 5-70% zinc sulfide or titanium oxide, 0.01-10% Group IB or Group IIB metal phosphate salt, 2-20% halogenated flame retardant such as halogenated polycarbonate, 0.5-15% antimony trioxide, anti-dripping agent, and additives including

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stabilizer, nucleant, and plasticizer (col.1, line 64-col.2, line 1, col.4, lines 42-47 and 64-65, col.6, lines 17-20, 23, 27-31, and 37-41, col.7, lines 13-27, col.8, lines 6-9 and 31-42). It is calculated that the ratio of polyester to polycarbonate ranges, for instance, from approximately 1.3:1 (20/15) to 3.3:1 (50/15).

The only deficiency of Vollenberg et al. is that while the present claims require mixing polyester and metal phosphate first to form a concentrate and then mixing the concentrate with the other ingredients in the composition, Vollenberg et al. disclose a composition wherein all the ingredients, including polyester and metal phosphate, are mixed together at one time.

On the one hand, although the manner in which Vollenberg et al. introduces the polyester and metal phosphate into the composition is different than that presently claimed, given that the end result of Vollenberg et al. and the present invention is the same, i.e. a composition containing polyester and metal phosphate, and given that the present claims are drawn to polyester composition not method of making polyester composition, it therefore would have been obvious to one of ordinary skill in the art that the final composition of Vollenberg et al. is the same as presently claimed, and thus, one of ordinary skill in the art would have arrived at the claimed invention.

On the other hand, Walsh, which is drawn to polyester composition, disclose that mixing polyester and metal phosphate produces a high flow blend having excellent melt stability (col.2, lines 4-49). Further, Walsh discloses that the polyester resin and metal phosphate are mixed first and then added to the other ingredients (col.8, lines 3-9 and Table 2).

In light of the disclosure of Walsh, it therefore would have been obvious to one of ordinary skill in the art to first produce a concentrate of polyester and metal phosphate and then

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add this concentrate to the other ingredients present in the composition of Vollenberg et al. in order to produce a composition which has high flow blend having excellent melt stability, and thereby arrive at the claimed invention.

3. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walsh (U.S. 5,367,011) in view of Seiler et al. (U.S. 4,672,086) and Gallagher et al. (U.S. 5,674,931).

Walsh discloses a flame retardant polyester composition comprising 0.5-60% glass fibers, polyester such as polyethylene terephthalate and polybutylene terephthalate, 0.01-10% Group IB or Group IIB metal phosphate salt, halogenated flame retardant such as brominated polycarbonate, antimony trioxide, anti-dripping agent, and additives including plasticizer. It is disclosed that the composition contains additional polymer such as polycarbonate, polyester-carbonate, and mixtures thereof. It is further disclosed that the polyester and metal phosphate are mixed first to form concentrate and then added to the other ingredients, which include second polyester, i.e. polyester-carbonate, and polycarbonate (col.2, lines 23-33, col.3, lines 23-25 and 30-51, col.5, lines 20-33, 50-54, and 60-66, col.6, lines 1-3 and 54, col.7, lines 24-27 and 31-61, and col.8, lines 3-9). Table 1 discloses that the composition comprises, for instance, 55% polybutylene terephthalate and 13% brominated polycarbonate and antimony trioxide.

The difference between Walsh and the present invention is the requirement in the claims of (a) pigment additive and (b) ratio of polyester to polycarbonate.

With respect to difference (a), Seiler et al., which is drawn to self-extinguishing polyester molding composition, disclose the use of zinc sulfide in order to prevent dripping (col.3, lines 35-45).

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With respect to difference (b), Walsh discloses that the composition contains polyester and polycarbonate, but does not disclose the ratio in which the polymers are present.

Gallagher et al., which is drawn to flame retardant composition, disclose the use of polyester and polycarbonate in a ratio of 20:80 to 80:20 wherein it is disclosed that if the amount of polycarbonate is too high, the composition has poor chemical resistance, while if the amount of polycarbonate is too low, the composition has poor heat resistance (col.4, lines 29-53).

In light of the motivation for using zinc sulfide and specific ratio of polyester to polycarbonate disclosed by Seiler et al. and Gallagher et al., respectively, as described above, it therefore would have been obvious to one of ordinary skill in the art to use zinc sulfide and polyester and polycarbonate in the specific ratio in the method of Walsh, and thereby arrive at the claimed invention.

4. Claims 1-3, 8-9, and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tilley et al. (U.S. 5,346,767) alone, or alternatively, in view of Walsh (U.S. 5,367,011).

Tilley et al. disclose composition comprising 0-30% glass fibers, 3-10% polyethylene terephthalate, 7-25% polybutylene terephthalate, 10% to 15% polycarbonate, 30-80% zinc sulfide or zinc oxide oxide, and 0.01-10% Group IB or Group IIB metal phosphate salt (col.1, line 57-col.2, line 4 and col.11, lines 7-10, 13, 22-25, and 55-60). It is calculated that the ratio of polyester to polycarbonate ranges, for instance, from approximately 0.67:1 (10/15) to 3.5:1 (35/10).

The only deficiency of Tilley et al. is that while the present claims require mixing polyester and metal phosphate first to form a concentrate and then mixing the concentrate with

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the other ingredients in the composition, Tilley et al. disclose a composition wherein all the ingredients, including polyester and metal phosphate, are mixed together at one time.

On the one hand, although the manner in which Tilley et al. introduces the polyester and metal phosphate into the composition is different than that presently claimed, given that the end result of Tilley et al. and the present invention is the same, i.e. a composition containing polyester and metal phosphate, and given that the present claims are drawn to polyester composition not method of making polyester composition, it therefore would have been obvious to one of ordinary skill in the art that the final composition of Tilley et al. is the same as presently claimed, and thus, one of ordinary skill in the art would have arrived at the claimed invention.

On the other hand, Walsh, which is drawn to polyester composition, disclose that mixing polyester and metal phosphate produces a high flow blend having excellent melt stability (col.2, lines 4-49). Further, Walsh discloses that the polyester resin and metal phosphate are mixed first and then added to the other ingredients (col.8, lines 3-9 and Table 2).

In light of the disclosure of Walsh, it therefore would have been obvious to one of ordinary skill in the art to first produce a concentrate of polyester and metal phosphate and then add this concentrate to the other ingredients present in the composition of Tilley et al. in order to produce a composition which has high flow blend having excellent melt stability, and thereby arrive at the claimed invention.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Breitenfellner et al. (U.S. 4,456,723) disclose concentrate comprising polyester and calcium phosphate.

Pixton et al. (U.S. 6,187,848) disclose composition comprising polyester, glass fiber, brominated polycarbonate, antimony trioxide, metal phosphate, and antidripping agent, however, there is no disclosure of polycarbonate as presently claimed.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
8/23/03